

Remarks

The Examiner:

(a) rejects claims 1, 2, 4, 6, 8 and as obvious based on Flexsteel's own Barth 5269497 in view of Rathbun Jr. 3768795 and Crosby 3210064 finding the crosspiece and springs obvious to combine, and the configuration to be an obvious design choice;

(b) rejects claim 2 as above, also considering Crosby 4815717;

(c) rejects claims 3, 7, 10 and 11 as above, also considering Isaac 3173672;

(d) rejects claim 5 as above, also considering Reed 1948130.

It is respectfully submitted that the claims are nonobvious and those references would not be combined.

Barth teaches leaf springs with a pair of V arches, the ends being fixed to the frame. Rathbun has flat leaf springs and teaches a suspension arrangement in which "novel loop springs" (27) are twisted to have crossing legs that space the leaf springs above a base. Crosby '064 uses torque bars in connection with traditional sinuous wire springs and individually connects the bar-sinuous wire spring units to a frame with coil springs.

The dynamics of seating are deceptively complex. Differing sized and numbers of people sit at differing locations with differing timing parameters and then subjectively react with conclusions of "comfort." Spring structures can yield important functional differences from apparently subtle mechanical variations. The cited art provides examples of very different approaches.

Barth essentially provides a simple "deck" generally coplanar with the frame. Resistance to sideward movement is provided by the use of the leaf spring geometry, with the arches providing some resilience to sideward motion.

Rathbun, unlike Barth, raises the spring "deck" and provides resistance to sideward movement by tying together pairs of leaf springs using the crossing legs of the loops. While Rathbun's drawings at first glance show structure in a

position analogous to perpendicular cross pieces, in fact those structures are "tapes or strips 20 of flexible plastic material" and function differently from crosspieces interconnecting and fastened to the leaf springs. They are not cross pieces as claimed.

Rathbun would not be combined with Barth to substantially perpendicularly interconnect the leaf springs. Rathbun, in fact, does not 'interconnect' more than two leaf springs, resulting in structure performing differently due to the separation of the leaf spring pairs from each other.

Rathbun's loops are also different from coil springs in a number of respects. Coil springs as claimed only operate responsive to tension along their axes. Rathbun's loops flex with both vertical and horizontal components. However, because of their flexing, there would be no need to combine Rathbun with coil springs. Rathbun teaches away from the use of coil springs.

Crosby '064 has coil springs. These coil springs are attached in a way to support sinuous wire springs. To control spring behavior, Crosby '064 adds "torque bars 45" to the ends of the sinuous wire springs. Wire spring flexing is the problem and the solution is to add torque bars. There is no interconnecting between the wire springs.

While it is true there would be no motive to combine Crosby '064's coil springs with Rathbun's loops and Barth's leaf springs, the references teach away from combination with one another. Barth's seating deck needs no interconnection or additional coil springs because of its function and geometry. Rathbun, similarly, uses the flexing loops, but no one taking Rathbun would look for coil springs to do anything. Finally, Crosby '064 exists to control the behavior of sinuous coils in vertical flexing. Crosby '064's only attempt to impart any control of sideward movement is to double coil springs, but place them at an angle. Thus, this also teaches away from the claimed combination. Even where coil springs are added, in dependent claims, they are placed differently than Crosby '064.

Claims 4 and 9 reflect far more than mere design choices. All the cited art shows that seemingly subtle structural differences can result in patentable improvements in furniture springs. The geometry of the arches and functional limitations complement the basic (also patentable) features that relate to spring flexing under various load conditions and movement and load in six axes.

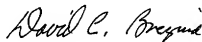
Claim 2 as amended has limitations neither taught nor suggested by Crosby '717.

The arguments above also apply to the rejection of claims 3, 7, 10 and 11. Isaac's springs 22 do not add significantly to Crosby. The claims as currently written and/or have very specific limitations to the structure, number, attachment and location of the helper springs.

The arguments above also apply to the rejection of claim 5. Reed uses horizontally oriented coil springs, interconnecting vertically oriented coil springs. Reed includes structure between selected vertical coil spring arrays that could perform a function somewhat like the claimed structure. Reed, however, does not teach the structure when combined with the other references.

This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully Submitted,



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